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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
GEBREMICHAEL, BRUK A	
ART UNIT	PAPER NUMBER
3715	

NOTIFICATION DATE	DELIVERY MODE
12/29/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/776,522	MAKUTA, YOHEI	
	Examiner	Art Unit	
	BRUK A. GEBREMICHAEL	3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 16-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 16-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/19/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a Final Office Action in response to communications received on 09/02/2008. Claim 15 has been canceled. Claims 1 and 17-19 have been amended, and claim 22 has been added. Therefore, claims 1-14 and 16-22 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- Claims 1, 3-4, 6, 9-10, 12-13, and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caprai 6,251,015 in view of Ritchie 4,637,605.

Regarding claim 1, Caprai discloses the following claimed limitations, a riding simulation system for providing an operator with a simulated experience of a running condition of a motor cycle (col.1, lines 64-66), the system comprising a display for displaying scenery viewable to the operator as a video image on the display (see FIG 1, display *not labeled*), wherein the video image is simulated based on an operating condition designated by the operator through the operation of an operating condition simulating mechanism (col.3, lines 20-27), a steering handle mechanism capable of being gripped by the operator (FIG 3, label 56), a body for rotatably securing the steering handle mechanism (FIG 3, label 16), and a control unit (FIG 1, label 14).

Caprai further implicitly discloses, the body for rotatably securing the steering handle mechanism comprising a pair of left and right main frames (FIG 2, label 28), a centrally located main frame (FIG 2, label 22).

Caprai does not positively disclose, a pair of sub-frames connected to roughly central portions of the right and left main frames so as to extend from the left and right main frames in a direction away from the operator of the simulation system, the control unit being mounted between the pair of left and right main frames and under centrally located main frame.

However, Ritchie teaches, a pair of left and right main frames, a centrally located main frame a pair of sub-frames connected to roughly central portions of the right and left main frames (see Examiner's annotated figure, FIG A which is based on FIG 1 of Ritchie's apparatus, label Pair of sub-frames), and a control unit for the system being mounted between the pair of left and right main frames and under the centrally located main frame (FIG 1, label 3 and also see FIG A regarding the Examiner's interpretation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by incorporating the apparatus of Ritchie in order to provide a more realistic riding or simulation experience to the user, as taught by Ritchie.

With regard to the recited feature, "*the pair of sub-frames extending in a direction away from the operator*", according to Applicant's specification, the function of the frames is to attach the simulation system to a flat-surface table (see Para.0035, Para.0049 and Para.0051 of Applicant's disclosure). The prior art (e.g. Caprai) also discloses that the

structural features taught in the reference (e.g. FIG 2, labels 22 and 28) are employed to secure the simulation system on a table (col.3, lines 45-50). Therefore, it would have been an obvious matter of design choice as to the frame used for securing the simulation system, wherein no stated problem is solved or unexpected result is obtained by prescribing a pair of sub-frames extending in a direction away from the operator.

Caprai in view of Ritchie teaches the claimed limitations as discussed above. Caprai further discloses,

Regarding claim 3, a clutch lever and a brake lever (FIG 3, labels 72 and 76).

Regarding claim 4, a steering handle angle sensor for detecting a turning amount of a tip end portion of the stem member (col.4 lines 37-56 and FIG 5).

Regarding claim 6, the steering handle mechanism is formed in a cylindrical shape (FIG 3, label 56) and includes a throttle grip for an accelerating operation of the motorcycle displayed on the display (FIG 3, label 68 and col.6, lines 65-67).

Regarding claim 9, the display being a display for a personal computer (col.3, lines 17-20).

Regarding claim 10, a casing being formed in a substantially box shape (see FIG 1, label 14).

Caprai does not explicitly disclose, a circuit substrate being disposed in an interior of the casing of the control unit, and a plurality of connection cables being connected to the circuit substrate through connectors.

However, Ritchie teaches, a circuit substrate (FIG 3, label 11) being disposed in an interior of the casing of a control unit (FIG 3, label 3), and a plurality of connection

cables being connected to the circuit substrate through connectors (FIG 3, labels 15 and 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by placing a circuit element inside the casing in order to attach the rotating member(s) of the control unit directly with the control cables of the handlebar as taught by Ritchie.

Regarding claims 12, 13 and 16, Caprai in view of Ritchie teaches the claimed limitations as discussed above.

Ritchie further teaches, the casing of the control unit is disposed between a first main frame and a second main frame (see FIG A below with the Examiner's interpretation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by placing the control unit between a pair of main frames in order to attach the rotating member(s) of the control unit directly with the control cables of the handlebar as taught by Ritchie (col. 3, lines 8-15 and FIG 1 labels 3, 15 and 17).

Further, providing plurality of flange portions on a given unit in order to attach the unit to a supporting member is an obvious and well-known expedient at the time of the claimed invention was made.

Regarding claim 17, Caprai discloses the following claimed limitations: a riding simulation system for providing an operator with a simulated experience of a running condition of a motor cycle (col.3, lines 64-66), the system comprising a display for displaying scenery viewable to the operator as a video image on the display (see FIG 1,

display *not labeled*), wherein said video image is simulated based on an operating condition designated by the operator through the operation of an operating condition simulating mechanism (col.3, lines 20-27), a steering handle mechanism capable of being gripped by the operator (FIG 3, label 56), a body for rotatably securing the steering handle mechanism (FIG 3, label 16), a control unit for said system (FIG 1, label 14).

Caprai further implicitly discloses, the body comprising a pair of left and right main frames (FIG 2, label 28), a centrally located main frame (FIG 2, label 22).

Caprai does not positively disclose, a pair of sub-frames connected to roughly central portions of the right and left main frames so as to extend from the left and right main frames in a direction away from the operator of the simulation system, the control unit being mounted between the pair of main frames.

However, Ritchie teaches, a pair of left and right main frames, a centrally located main frame a pair of sub-frames connected to roughly central portions of the right and left main frames (see Examiner's annotated figure, FIG A which is based on FIG 1 of Ritchie's apparatus, label Pair of sub-frames), and a control unit for the system being mounted between the pair of main frames (FIG 1, label 3 and also see FIG A regarding the Examiner's interpretation).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by incorporating the apparatus of Ritchie in order to provide a more realistic riding or simulation experience to the user, as taught by Ritchie.

With regard to the recited feature, "*the pair of sub-frames extending in a direction away from the operator*", according to Applicant's specification, the function of the frames is to attach the simulation system to a flat-surface table (see Para.0035, Para.0049 and Para.0051 of Applicant's disclosure). The prior art (e.g. Caprai) also discloses that the structural features taught in the reference (e.g. FIG 2, labels 22 and 28) are employed to secure the simulation system on a table (col.3, lines 45-50), and therefore this does not distinguish the current invention from the prior art, as the teaching of the prior art appears to work well for the intended purpose.

Regarding claims 18 and 19, Caprai in view of Ritchie teaches the claimed limitations as discussed above.

Caprai further discloses, the end of the centrally located main frame disposed farthest away from the operator (FIG 2, label 22).

Caprai does not positively disclose, the end of the centrally located main frame is connected to a cross frame bridging between tip end portions of the sub-frames.

However, Ritchie teaches, the end of the centrally located main frame is connected to a cross frame bridging between tip end portions of the sub-frames (see FIG A, the section i.e. back wall of the control unit where the end of the pair of sub-frames and end of the central frame are connected)

Therefore, here also, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by linking the end of the steering stem to the sub-frames in order to achieve an optimum force distribution so that the simulation system would be more stable.

Caprai in view of Ritchie teaches the claimed limitations as discussed above. Caprai further discloses,

Regarding claims 20 and 21, Caprai in view of Ritchie teaches the claimed limitations as discussed above. Ritchie further teaches, a cylinder portion for receiving a steering stem, and wherein each of the right, left, and centrally located main frames has an upper end connected to the cylindrical portion (see FIG A below with the examiner's interpretation, the central frame, and the left and right main frames).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie by using a cylindrical member in order to rotatably secure the steering stem, as taught by Ritchie.

Note that the above limitation is implicitly taught by Caprai (see FIG 2, labels 22 and 28, and FIG 3, labels 16 and 42).

Regarding claim 22, Caprai in view of Ritchie teaches the claimed limitations as discussed above. Caprai further discloses, the riding simulation apparatus adapted to be mounted on an elevated mounting surface (FIG 1), wherein said pair of left and right main frames is adapted to be secured to one side of the elevated mounting surface, and said centrally located main frame is adapted to be secured to an opposite side of the elevated mounting surface (FIG 2, labels 22 and 28).

- Claims 2, 5, 7, 8, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caprai 6,251,015 in view of Ritchie 4,637,605 and further in view of Pittarelli 3,964,564.

Regarding claim 2, Caprai in view of Ritchie teaches the claimed limitations as discussed above.

Caprai further discloses, the steering handle mechanism comprising a steering stem having a generally fan-shaped upper portion (FIG 3, label 42), an elongate steering handle being integrally held on the steering stem through a holder (FIG 3, labels 56 and 54), one of a clutch lever (FIG 3, label 76) and a brake lever (FIG 3, label 72) are held on the steering handle, and left and tight grips which are mounted respectively to end portions of the steering handle (FIG 3, label 60).

Caprai in view of Ritchie does not positively teach, lever joint portions through which at least one of a clutch lever and a brake lever are held on the steering handle.

Pittarelli teaches, lever joint portions through which at least one of a clutch lever and a brake lever are held on the steering handle (see FIG 1 labels 141,142, 144 and col. 6, lines 53-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie and further in view of Pittarelli by using clamps in order to construct the joint portions in a way that the operating levers will be swingable on the handlebar as taught by Pittarelli.

Caprai in view of Ritchie and further in view of Pittarelli teaches the claimed limitations as discussed above. Caprai further discloses,

Regarding claim 5, a steering handle angle sensor for detecting a turning amount of a tip end portion of the stem member (col.4 lines 37-56 and FIG 5).

Regarding claims 7 and 8, the steering handle mechanism is formed in a cylindrical shape (FIG 3, label 56), and includes a throttle grip (FIG 3, label 68) for an accelerating operation of the motorcycle displayed on the display (col.6, lines 65-67).

Regarding claim 11, the control unit further including a casing being formed in a substantially box shape (FIG 1, label 14).

Ritchie further teaches, a circuit substrate (FIG 3, label 11) being disposed in an interior of the casing of a control unit (FIG 3, label 3), and a plurality of connection cables being connected to the circuit substrate through connectors (FIG 3, labels 15 and 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie in and further in view of Pittarelli by placing a circuit element inside the casing in order to attach the rotating member(s) of the control unit directly with the control cables of the handlebar as taught by Ritchie.

Here also, the above limitation is implicitly taught by Caprai (col.5, lines 19-25).

Regarding claim 14, Caprai in view of Ritchie in and further in view of Pittarelli teaches the claimed limitations as discussed above.

Ritchie further teaches, the circuit substrate is disposed in the interior of the casing (FIG 3, label 3), the connectors are disposed at a lower end portion of the circuit substrate, and the connection cables are connected to the circuit substrate through the connectors (FIG 3, labels 15 and 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Caprai in view of Ritchie and further in view of Pittarelli by placing a circuit element inside the casing in order to attach the rotating member(s) of the control unit directly with the control cables of the handlebar as taught by Ritchie.

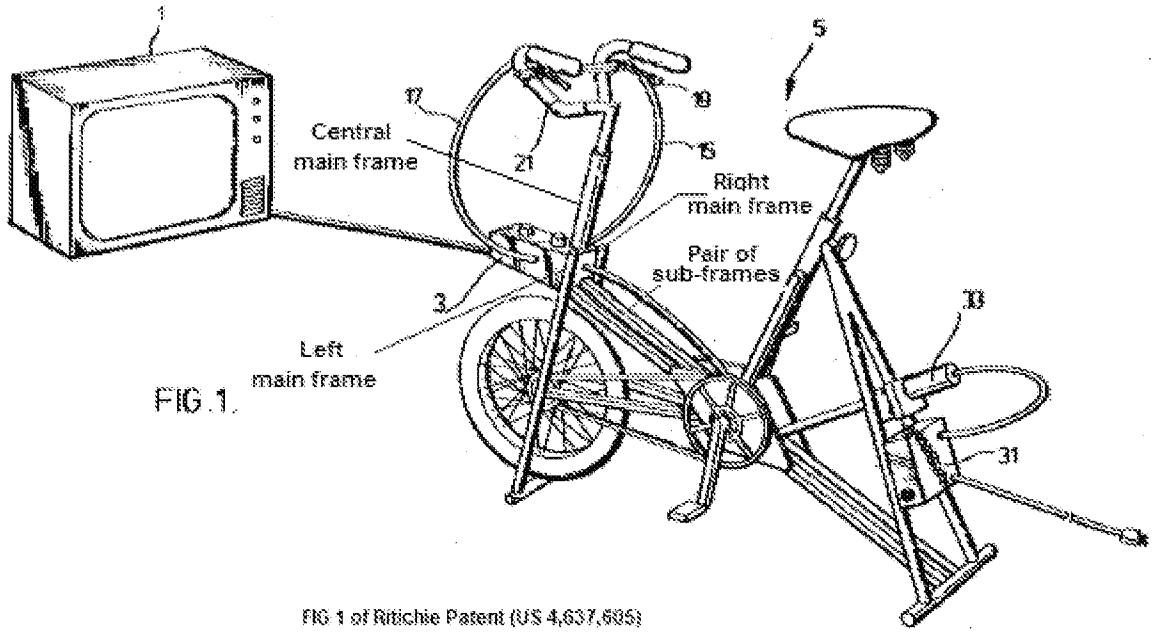

FIG 1 of Ritchie Patent (US 4,637,595)

FIG.1.

FIG A

Response to Arguments.

3. Applicant's arguments filled on 09/02/2008 have been fully considered but they are not persuasive. In the remarks, Applicant argues that:

(1) First of all, as argued previously, it is difficult for the Applicant to understand how the Examiner can reasonably consider Ritchie to teach "control unit for said system

being mounted between said pair of left and right main frames," as in claim 1 as previously presented. . . .

. . . Specifically, regarding the present application, which the Examiner has rejected based on Ritchie, it is certainly not proper for the Examiner to selectively use the high level drawing of Ritchie's FIG. 1, while ignoring Ritchie FIGS. 4, 9, and 10, each of which explicitly conflicts with the Examiner's allegations about the structure of the Ritchie device. Thus the Examiner's rejection of claims 1 and 17 as previously presented in not proper.

(2) Secondary, FIGS. 1 and 4 explicitly illustrate subframes 54a, 54b connected to roughly central portions of the right and left main frames 52a, 52b so as to extend from the right and left main frames in a direction away from the operator of the simulation system 10, as set forth in each of independent claims 1 and 17, as amended herein. . .

. . . .Thus, Ritchie cannot possibly teach or suggest "a pair of sub-frames connected to roughly central portions of the right and left main frames so as to extend from the left and right main frames in a direction away from the operator of the simulation system", as set forth in claims 1 and 17, as amended herein. (Emphasis added).

Further, as the Examiner concedes, Caprai cannot make up for the above deficiencies of Ritchie to reject claims 1 and 17 of the present invention.

In response to argument (1), the control unit taught in Ritchie’s reference is attached between the right and left main frames of the simulation system. Even though part of the

control unit appears to be in front of the frames, its attachment is between the two main frames, and therefore this structure teaches or suggests the broadest interpretation of Applicant's claimed limitation. In addition, the criticality or functional purpose disclosed in the Applicant's disclosure with regard to placing the control unit between the left and right main frames and under the centrally located main frame is to prevent the field of vision of the operator from being restricted (see Para.0057 and Para.0058 of Applicant's disclosure). It is also evident from the disclosure of the prior art (Caprai, FIG 1, label 14 and also Ritchie, FIG 1, label 3), the control unit does not appear to restrict the field of vision of the user. Thus, this functional limitation has already been suggested by the prior art, and as a result it does not distinguish the current invention from the prior art.

Further more, it has been held that, "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

In response to argument (2), the Examiner respectfully disagrees. Reciting a feature that does not affect (change) the functional limitation of a system already taught by the prior art does not distinguish the current invention from the prior art. In the instant case, the recited feature, "*the pair of sub-frames extending in a direction away from the operator*", as already discussed above, according to Applicant's disclosure, the functional limitation of this feature is to secure the simulation system on a flat-surface table (Para.0035, Para.0049 and Para.0051 of Applicant's disclosure). Similarly, the

prior art teaches structural features (e.g. FIG 2, labels 22 and 28) that are employed to secure the simulation system on a table (col.3, lines 45-50). From this, it is clear that the functional limitations of Applicant's recited feature appears to be the same as the teaching of the prior art (i.e. to secure the simulation system on a table), and therefore this also does not distinguish the current invention from the prior art.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filled within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruk A. Gebremichael whose telephone number is (571)270-3079. The examiner can normally be reached on Monday to Friday (7:30AM-5:00PM) ALT. Friday OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bruk A Gebremichael/
Examiner, Art Unit 3715

/Cameron Saadat/
Primary Examiner, Art Unit 3715